

EXHIBIT B

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10 **UNITED STATES DISTRICT COURT**
11 **NORTHERN DISTRICT OF CALIFORNIA**
12 **SAN FRANCISCO DIVISION**

13 GOOGLE LLC,

14 Plaintiff

15 v.

Case No. 3:20-cv-06754-WHA

16 SONOS, INC.,

17 Defendant.

18
19 **GOOGLE LLC’S THIRD SUPPLEMENTAL OBJECTIONS AND RESPONSES TO**
20 **PLAINTIFF SONOS, INC.’S FIRST SET OF FACT DISCOVERY INTERROGATORIES**
(NOS. 13, 14, 15)

21 Pursuant to Rule 33 of the Federal Rules of Civil Procedure, Defendant Google LLC
22 (“Google”) hereby objects and responds to Plaintiff Sonos, Inc.’s (“Sonos”) First Set of Fact
23 Discovery Interrogatories to Defendant (“Interrogatories”). Google responds to these
24 Interrogatories based on its current understanding and the information reasonably available to
25 Google at the present time. Google reserves the right to supplement these responses if and when
26 additional information becomes available.

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HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY**OBJECTIONS AND RESPONSES TO FACT DISCOVERY INTERROGATORIES****INTERROGATORY NO. 13**

Describe in detail how the Google Home app running on a computing device (e.g., an Accused Pixel Device, an Accused Cast-Enabled Display, or a third-party mobile phone or tablet), independently or working with other software on the computing device, enables a user to manually,”¹ as opposed to “dynamically,” create a “speaker group”² of two or more Accused Cast-Enabled Media Players and then play media from such a manually created “speaker group” including, but not limited to, (i) describing in detail any information that is exchanged between the computing device and the Accused Cast-Enabled Media Players to facilitate the aforementioned functionality and how such exchange takes place, (ii) describing in detail any information that is stored at the Accused Cast-Enabled Media Players to facilitate the aforementioned functionality and how such storage takes place, and (iii) identifying by filename and method/function name the specific source code related to the functionality described in (i)-(ii).

OBJECTIONS:

Google incorporates by reference all of its General Objections as if fully set forth herein. Google objects to this interrogatory on the grounds that it is vague, ambiguous, unclear as to information sought, and lacking sufficient particularity to permit Google to reasonably prepare a response with respect to the undefined terms “manually,” “dynamically,” “third-party mobile phone or tablet,” “independently or working with other software on the computing device,” “exchanged between the computing device and the Accused Cast-Enabled Media Players,” “facilitate,” “who such exchange takes place,” “any information that is stored,” “how such storage takes place,” “filename,” and “method/function name.” Google further objects to this interrogatory to the extent that it assumes the existence of hypothetical facts that are incorrect or unknown to Google.

¹ See, e.g., <https://blog.google/products/google-nest/new-multi-room-audio-control-nest/>.

² See, e.g., <https://support.google.com/googlenest/answer/7174267?co=GENIE.Platform%3DAndroid&hl=en>.

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1 Google also objects to this interrogatory as overbroad, burdensome, and not proportional to
2 the needs of the case, including to the extent it seeks information that is not relevant to any claim or
3 defense of any party or to the subject matter of this action, including to the extent that it seeks
4 information about “a third-party mobile phone or tablet” and non-accused instrumentalities or
5 technology. Google further objects to this interrogatory as overbroad and unduly burdensome to the
6 extent that it seeks information that is publicly available, not uniquely within the control of Google,
7 or is equally available to Sonos. Google additionally objects to this interrogatory to the extent it
8 seeks communications and information protected from disclosure by the attorney-client privilege
9 and/or attorney work product doctrine. Google further objects to this interrogatory to the extent it
10 seeks confidential and/or proprietary business information. Google also objects to this interrogatory
11 to the extent that it premature seeks expert discovery, opinion, and/or testimony. Google additionally
12 objects to this interrogatory to the extent it seeks information that is not reasonably accessible or
13 that is not within Google’s possession, custody, or control.

RESPONSE:

15 Subject to and without waiving the foregoing General and Specific objections, Google
16 responds, as follows:

17 Google objects to this interrogatory as vague, ambiguous, unclear as to information sought,
18 and lacking sufficient particularity to permit Google to reasonably prepare a response. Google is
19 willing to meet and confer to clarify the scope of this request, in particular to the extent it seeks
20 information regarding how the Google Home app “enables a user to ‘manually,’ as opposed to
21 ‘dynamically,’ create a ‘speaker group.’”

SUPPLEMENTAL RESPONSE:

23 Google maintains the General and Specific objections set forth above. Google further
24 objects to this interrogatory on the grounds that it is vague and ambiguous to the extent it seeks
25 information regarding products not specifically identified by make or model number in Sonos’s
26 infringement contentions. For example, Google objects to Accused Cast-Enabled App to the extent
27 it seeks information regarding products not specifically identified in Sonos’s infringement
28 contentions. Google also objects to this interrogatory to the extent it seeks to encompass Spotify,

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1 which is a separate, third-party application. Subject to and without waiving the foregoing General
2 and Specific objections, Google responds, as follows:

3 A message that is received by a group member during configuration of the speaker group is
4 a `join_group` command. The `join_group` command instructs the device to join a group, and it may
5 be received from a device using the Cast protocol. The `join_group` command is a JSON message
6 that may include keys and values such as `channel_selection` (left, right, or empty),
7 `multichannel_group` (true or false), UUID (unique ID identifying the group), group name, stereo
8 balance, leader. The Google Home app is an example of an application that can send a `join_group`
9 command, although it may not set each variable of that command, such as leader. In the Google
10 Home app, a user may select a specific device and add it to a group in Home app, which causes the
11 Google Home app to send a `join_group` command to that device. In the scenario where a user is
12 configuring a new group of two players, both players may receive the join group command. The
13 relevant devices will continually elect a leader device. The first time that election process takes
14 place is as soon as the first device receives the join group command for that group. Each device
15 may announce its group membership and group characteristics over a broadcast mechanism such as
16 mDNS. *See* GOOG-SONOSWDTX-00051041; GOOG-SONOSWDTX-00048962. Although a
17 user’s handheld device on the same network and properly configured may receive those messages,
18 it may not process or recognize them and is not configured to do so by Google’s products. If a group
19 has been created, the devices in the group use a record of the group name and its unique identifier,
20 which may be referred to as being in a prefs file. *See* GOOG-SONOSWDTX-00051041; GOOG-
21 SONOSWDTX-00048962. That file will not include information regarding which follower or
22 followers is in the group. Individual devices do not store group membership information for other
23 devices persistently; rather, the leader has a set of connections from the follower devices in memory,
24 on a group-by-group basis. A launch request is one of the messages that a leader may receive at the
25 time that a Cast session is launched with a group. A group may be launched without sending a load
26 command where playback is not yet happening at the mobile phone. In some scenarios, if the mobile
27 phone is engaged in a local playback of audio at the time that the user chooses to launch a Cast
28 session with a group, a load command depending on the specific app implementation may be

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1 sent. The leader of a group, in some circumstances prior to initiating playback, may receive a URL
2 to network content from a sender app. In other circumstances, a sender app may not be the source
3 of a Cast session. Generally, when a group launch request is received, the leader may send a launch
4 notification to all followers over the TCP control channel. When a launch request is received, the
5 requested app is launched on the leader device if possible, and when the content app has been
6 launched, multizone code receives a notification that the app has been launched and was targeted at
7 a specific group. At that point it may send out a launch notification. Certain code within
8 group_follower_control.CC may be executed on a follower in response to receiving a launch request
9 from a leader. In response to receiving the launch request, error conditions may be checked,
10 memory variables may be corrected for state, and the bounds on the clock offset request rate may
11 be modified. Timers are started that periodically log information, and a follower app may be
12 launched. One of the required steps for the player to begin actively operating as a follower is
13 launching the follower app. There may be a message received from the leader that when the follower
14 receives it, causes it to launch the follower app. Source code partially responsible for receiving the
15 group launch command at the leader is the application_namespace_handler.cc file, although the
16 launch request itself is handled across many modules. multizone_manager.cc may receive a
17 notification that the application has been launched.

18 Google Cast is an mDNS service that can provide announcements from devices indicating
19 that they support the Cast protocol. *See* GOOG-SONOSWDTX-00051041. The group leader (if
20 any) may announce itself as a googlecast service with the group name but pointing at a different
21 port than the normal googlecast port to differentiate launch requests for the group (as opposed to
22 launch request for the specific device). *See id.* The leader of the group may use Google Cast service
23 to announce the presence of the group as a Google Cast service, including the port, so that devices
24 may connect to it. *See id.*

25 The Cast stream expansion is a feature whereby if a user is playing an audio stream, they
26 can add additional devices to that audio stream, which is related to dynamic grouping. *See* GOOG-
27 SONOSNDCA-00056732. The behavior of adding a device to playback and removing a device
28 from playback is described therein and implemented in the source code produced by Google. Unlike

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1 static groups, which may be created in the Google Home App before media starts playing; dynamic
 2 groups are formed when media is playing and an additional speaker is added to the playback
 3 group. Dynamic groups can also be further modified during playback.

INTERROGATORY NO. 14:

5 For each Accused Cast-Enabled App, describe in detail how the given Accused Cast-Enabled
 6 App (e.g., YouTube Music, YouTube, Google Play Music, Google Podcasts, Spotify) running on a
 7 computing device (e.g., an Accused Pixel Device, an Accused Cast-Enabled Display, or a third-
 8 party mobile phone or tablet), independently or working with other software on the computing
 9 device, enables a user to “cast,”³ or otherwise move or transfer media,⁴ to an Accused Cast-Enabled
 10 Media Player including, but not limited to, (i) describing in detail any information that is exchanged
 11 between the computing device, the Accused Cast-Enabled Media Player, and/or any Accused
 12 Google Server to facilitate the aforementioned functionality and how such exchange takes place, (ii)
 13 describing in detail any creation, existence, modification, or deletion of any “queue”⁵ of one or more
 14 media items to facilitate the aforementioned functionality and how such creation, existence,
 15 modification, or deletion takes place, and (iii) identifying by filename and method/function name
 16 the specific source code related to the functionality described in (i)-(ii).

17 **OBJECTIONS:** Google incorporates by reference all of its General Objections as if fully
 18 set forth herein. Google objects to the characterization of this interrogatory as a single interrogatory
 19 given that it contains multiple discrete subparts under Fed. R. Civ. P. 33(a)(1). Google objects to
 20 this interrogatory on the grounds that it is vague, ambiguous, unclear as to information sought, and
 21 lacking sufficient particularity to permit Google to reasonably prepare a response with respect to the
 22 undefined terms “running on a computing device,” “independently or working with other software
 23 on the computing device,” “information that is exchanged,” “facilitate,” “how such exchange takes
 24 place,” “creation, existence, modification, or deletion,” “how such creation, existence, modification,
 25

26 ³ See, e.g., <https://support.google.com/googlenest/answer/7181830>.

27 ⁴ See, e.g., <https://support.google.com/chromecast/answer/9563059?co=GENIE.Platform%3DAndroid&hl=en>

28 ⁵ See, e.g., https://developers.google.com/cast/docs/ios_sender/queueing.